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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/012,464	12/12/2001	Barry Hannigan	87264.2441	7184
21834	7590	07/08/2005	EXAMINER	
BECK AND TYSVER P.L.L.C. 2900 THOMAS AVENUE SOUTH SUITE 100 MINNEAPOLIS, MN 55416			TIEU, BINH KIEN	
			ART UNIT	PAPER NUMBER
			2643	

DATE MAILED: 07/08/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/012,464

Applicant(s)

HANNIGAN, BARRY

Examiner

BINH K. TIEU

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 08 November 2004.
- 2a) ☒ This action is FINAL. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,4-6,9,10,12 and 14-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,4,6,9,10,12 and 14-20 is/are rejected.
- 7) ☒ Claim(s) 5 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 6, 9-10, 12, 14-17 and 20 are rejected under 35 U.S.C. 102(e) as being anticipated by Lin et al. (U.S. Pat. #: 6,028,914).

Regarding claim 6, Lin et al. ("Lin") teaches a method for call tracing in a telephony system (i.e., a call tracing system as shown in figure 9A) having nodes (i.e., SP, STP, RSTP, etc.) in relationship to one another by communication links (i.e., links 94-96) carrying signaling messages being used to set up voice channels in the telephony system to facilitate calls, the method comprising the step of:

- a) entering telephone number criteria to be detected (i.e., entering called party number or dialed number (NPA-NXX-XXX);
- b) detecting at a first probe a signaling message with the telephone number criteria (i.e., detecting Signal Unit (SU));
- c) issuing a trigger upon detecting the telephone number criteria (i.e., issuing a query message);
- d) stamping of the trigger with a time stamp (i.e., time stamping the query message);

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e) broadcasting the trigger message to a second probe (i.e., first probe (anchored) transmitting time stamped message to other remote monitors);

f) placing signaling messages detected at a second probe in storage (i.e., placing the messages into queue);

g) discovering signaling messages detected by the second probe before the second probe received the trigger message by examining the signaling message in the storage for messages related to the telephone number criteria (col.10, line 19 through col.12, line 12).

Regarding claim 9, note the storage or queue of each of the monitors, col.11, line 66 – col.12, line 2.

Regarding claim 10, note col.12, lines 2-4.

Regarding claim 12, Lin teaches an apparatus for call tracing in a telephony system (i.e., a call tracing system as shown in figure 9A) having nodes (i.e., SP, STP, RSTP, etc.) in relationship to one another by communication links (i.e., links 94-96) carrying signaling messages being used to set up voice channels in the telephony system to facilitate calls comprising:

a) mean for entering telephone number criteria to be detected (i.e., entering called party number or dialed number (NPA-NXX-XXX));

b) mean for detecting at a first probe a signaling message with the telephone number criteria (i.e., detecting Signal Unit (SU));

c) mean for issuing a trigger time stamp upon detecting the telephone number criteria (i.e., issuing a query message);

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d) mean for broadcasting detecting criteria and the trigger time stamp to a probe (i.e., first probe (anchored) transmitting time stamped message to other remote monitors and time stamping the query message);

e) means for detecting signaling messages at the at least one other probe based on the detecting criteria and time stamp even where signaling messages were received by the probe before the broadcast was received by the probe (col.10, line 19 through col.12, line 12).

Regarding claims 14-15, note col.11, lines 44-62.

Regarding claim 16, note col.11, lines 63-66.

Regarding claim 17, note col.12, lines 2-4.

Regarding claim 20, note col.10, lines 39-43 and col. line 57 – col.11, line 2.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1 and 4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lin et al. (U.S. Pat. #: 6,028,914) in view of Birnahrk (U.S. Pat. #: 6,400,813 cited in the previous Office Action).

Regarding claim 1, Lin teaches a call tracing system for use in a telephony system (i.e., a call tracing system as shown in figure 9A) having nodes (i.e., SP, STP, RSTP, etc.) in relationship to one another by communication links (i.e., links 94-96) carrying signaling

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messages being used to set up voice channels in the telephony system to facilitate calls, the call tracing system comprising:

- a) a first probe (i.e., anchored monitor 91 or M1)
 - (i) monitoring respective communication links for signaling link messages related to a given call and
 - (ii) issuing triggers with a time stamp to the element manager in response to detecting a signaling link message related to the given call (col.10, lines 29-48);
- b) a second probe (i.e., monitor 92 or M2)
 - (i) monitoring communication links for signaling link messages,
 - (ii) having a buffer for the temporary storage of signaling link messages,
 - (iii) receiving the trigger with the time stamp rebroadcast by the element manager, and
 - (iv) examining the buffer to look for signaling link messages that were placed in the buffer before the second probe received the trigger (col.10, line 49 – col.11, line 2 and col.11, line 62 – col.12, line 12).

It should be noticed that Lin further teaches that each of monitors can broadcast time stamped TID x message to the other monitors. Lin fails to clearly teach a manager connected to the monitor for broadcasting time stamped messages to the monitors. However, Birnahk teaches mediators 65 and 66 as shown in figure 2 operating as element managers (col.3, line 56 – col.4, line 3 and col.4, lines 29-38) for a purpose of monitoring communication links for signaling link messages related to a given call.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the use of the mediators 65 and 66 as shown in figure 2 operating as element managers, as taught by Birnahr, in view of Lin in order to monitor communication links for signaling link messages related to a given call.

Regarding claim 4, Lin further teaches limitations of the claim in col.10, line 59 – col.11, line 2 and col.12, line 2-12.

5. Claims 18-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lin et al. (U.S. Pat. #: 6,028,914) in view of Swanson (U.S. Pat. #: 5,867,558).

Regarding claims 18-19, Lin teaches all subject matters as claimed above, except for an element manager within the monitoring system. However, Swanson teaches a call monitoring system for monitoring the signaling network in a telephone communication system as shown in figure 1 comprising signal monitoring system 160, operation support system 180 and terminal 184. Said signal monitoring system 160, operation support system 180 and terminal 184 operate as an element manager that allows a technician to enter pre-determined call parameters into the monitoring system (col.3, line 58 – col.4, line 15) for a purpose of detecting and filtering protocol or “of interest” signaling messages.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the use of said signal monitoring system 160, operation support system 180 and terminal 184 operate as an element manager, as taught by Swanson, in view of Lin in order to detect signaling link messages of a given placed in the remote probe's buffer.

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Allowable Subject Matter

6. Claim 5 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Response to Arguments

7. Applicant's arguments with respect to claims 1, 4, 6, 9-10, 12 and 14-20 have been considered but are moot in view of the new ground(s) of rejection.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for response to this final action is set to expire **THREE MONTHS** from the date of this action. In the event a first response is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event will the statutory period for response expire later than **SIX MONTHS** from the date of this final action.

Any response to this final action should be mailed to:

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**Commissioner of Patents and Trademarks
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Or faxed to:

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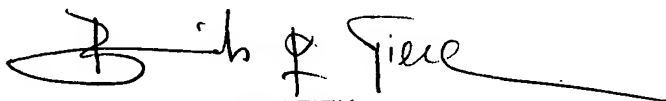
**Customer Service Window
(Randolph Building)
401 Dulany Street
Alexandria, VA 22314**

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8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Binh K. Tieu whose telephone number is (571) 272-7510 and E-mail address: BINH.TIEU@USPTO.GOV.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mr. Curtis Kuntz, can be reached on (571) 272-7499 and **IF PAPER HAS BEEN MISSED FROM THIS OFFICIAL ACTION PACKAGE, PLEASE CALL Customer Service at (703) 306-0377 FOR THE SUBSTITUTIONS OR COPIES.**

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the FAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

A handwritten signature in black ink, appearing to read 'Binh Tieu', with a long horizontal line extending to the right.

**BINH TIEU
PRIMARY EXAMINER**

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Date: July 05, 2005